



**Department of the Environment**

# Implementation of the Ground Water Rule

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**Water Supply Program**



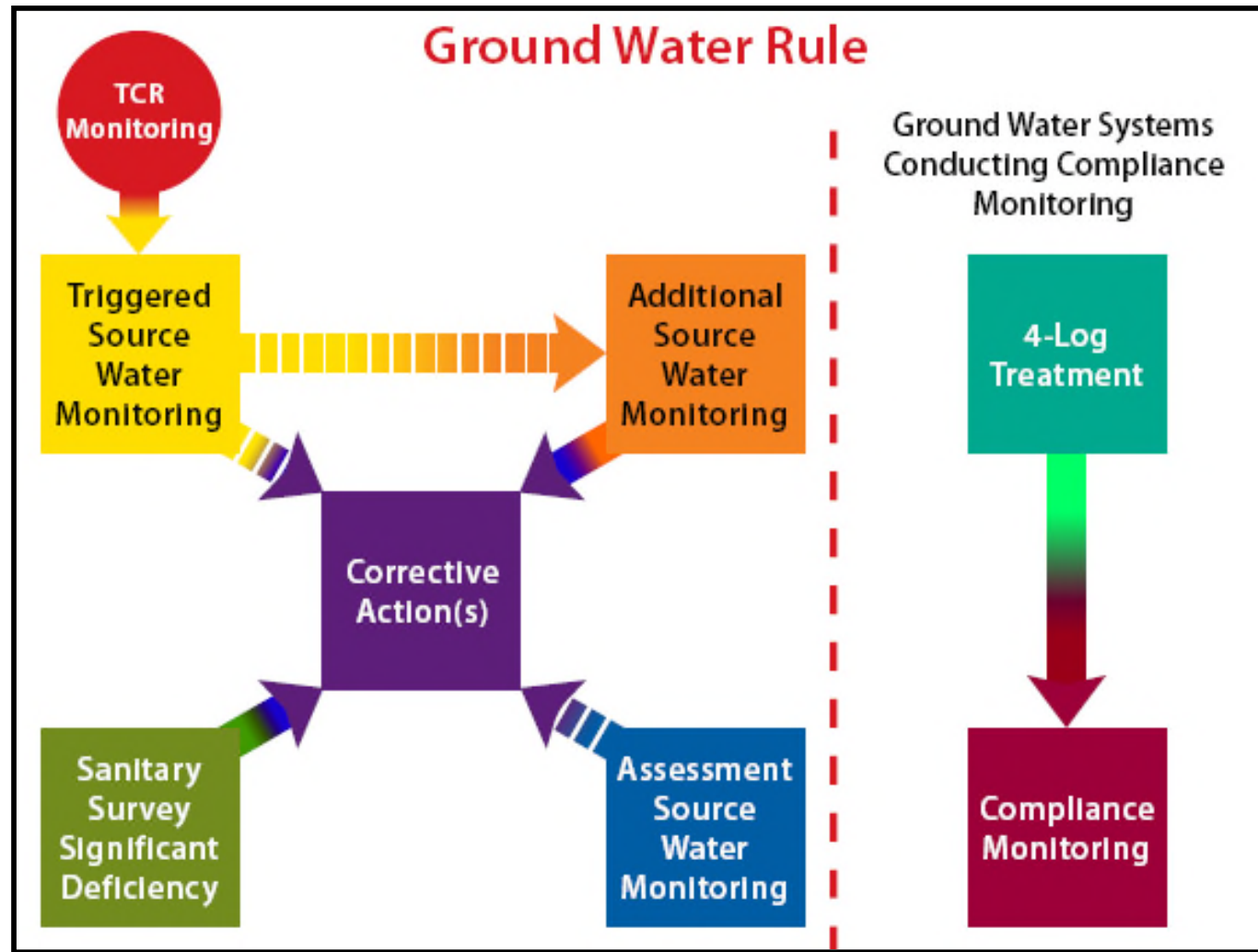
# Overview

- Compliance Date December 1, 2009
- MDE responsible for Community, Non-transient, and some Transients systems.
- CHD with delegation agreements will be responsible for their Transient systems.

- **1927 Model T**
- **20.2 Hp**
- **40 MPH top speed**
- **14 MPG**
- **No Radio**
- **No Heat or AC**



# Overview



# Presentation

- Past (What do we know about GW)
- Present (What is MDE doing now)
- Future (What will we have to do)

# What has already been done?

- Ground Water Under the Direct Influence.
  - Extensive Wet and Dry weather sampling
- Sanitary Surveys
  - MDE and County Health Departments
- Studies
  - MDE, USGS studies

# GWUDI Sampling

- Dry and/ or wet weather sample sets were taken at ground water sources.
- CHD\*, MDE, Systems, Contractors.

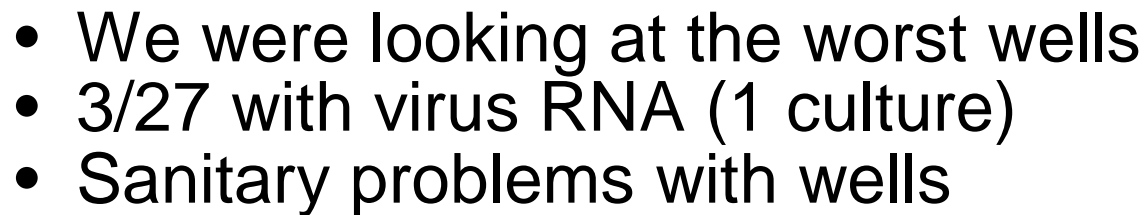
# Sanitary Surveys

- MDE has been conducting SS at GW systems at least 1 every 3 years. (5 NC)
  - Community, Non-transient and Transient
- CHD transient delegation agreements requires at least 1 SS every 5 years.



# Sampling Studies

- Water-Resources Investigation Report 01-4147 (USGS)
  - 27 high risk sites on WI and WO
- Water-Resources Investigation Report 01-4216 (USGS)
  - 91 random sites in BA and HA



## 01-4216 (USGS)



- Sampled 91 random wells
- 1/91 with virus RNA (0 culture)

# What is MDE Doing?

- Not going to require 4 log treatment for viruses at all GW systems.
  - Sampling Studies
  - Extensive GWUDI sampling
  - Well Regulations
  - Overall History

## What is MDE Doing? (Cont)

- We are currently rewriting COMAR Regs.
  - Sanitary Survey
  - Triggered Source Water Monitoring
  - Assessment Source Water Monitoring
  - Compliance Monitoring (4-log)



## What is MDE Doing? (Cont)

- 4-Log treatment verification
- Sanitary Survey form modifications
- Fecal indicator will include or be E. Coli



# What do we have to change?

- Sanitary Surveys (8 elements)
- Triggered Source Water Monitoring
- Corrective Action
- Paperwork
- 4-Log Treatment Verification



# Sanitary Survey 8 Elements

- Source
- Pumps, Pump Facilities, Controls
- Treatment
- Finished Water Storage
- Distribution System
- Monitoring, Reporting, and Data Verification
- Water System Management and Operation
- Operator Compliance with State Regs.



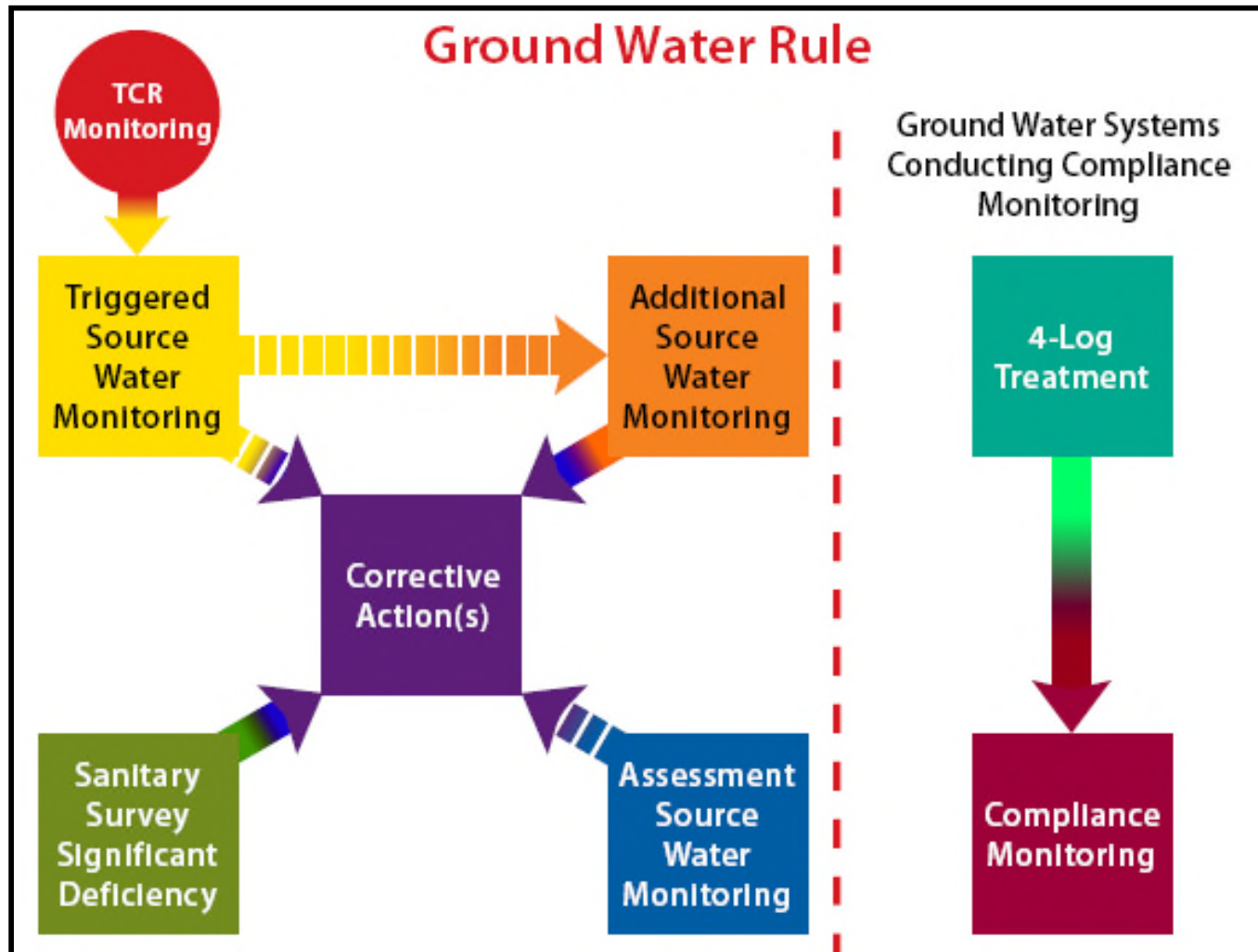


# Triggered Source Water Monitoring

- Systems Serving 1,000 people or fewer may use a TCR repeat sample to satisfy the GWR triggered source water sample if
  - State allows a TCR repeat sample to be taken at the source. And
  - State approves use of E. Coli as a fecal indicator.

# Corrective Action

- Some of us will have to modify our methods of dealing with systems when a system must perform corrective action.



# Paperwork

- Compliance Monitoring (4-Log only)

# Conclusion

**Sanitary Surveys  
of all GWSs**

**Source Water  
Monitoring**

**Corrective Actions  
for Significant  
Deficiencies &  
Fecal  
Contamination**

**Compliance  
Monitoring**



# **Maryland Department of the Environment**

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# Interior Pages

- Establish relevancy of topic to audience.
- Get audience involvement.